Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services

STATEMENT OF BASIS

Sabine Pass LNG, LP
Sabine Pass LNG Terminal
Johnsons Bayou, Cameron Parish, Louisiana
Agency Interest No. 119267
Activity Number: PER20080006
Proposed Permit 0560-00214-V2

I. APPLICANT

Company:
Sabine Pass LNG, LP
700 Milam Street, Suite 800
Houston, Texas 77002

Facility:
Sabine Pass LNG Terminal
9243 Gulf Beach Hwy, Johnsons Bayou, Cameron Parish, Louisiana
Location: 29° 45' 49" latitude, 93° 51' 58" longitude, Coordinate Datum: NAD83

II. FACILITY AND CURRENT PERMIT STATUS

The Sabine Pass LNG Terminal imports, stores, and vaporizes LNG for the U.S. natural gas markets. The facility is able to vaporize four billion standard cubic feet per day of LNG.

The Sabine Pass LNG Terminal Currently operates under Permit 0560-00214-V1 and PSD-LA-703(M1), dated January 4, 2007.

III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application dated May 10, 2008 as well as additional information dated January 15, 2009 were submitted requesting a Part 70 operating permit modification.

Project

Sabine Pass LNG, LP requests a permit modification to 1) remove two permitted but never been constructed standby diesel-fired firewater pump booster engines, 2) construct and operate a fuel dispensing facility, 3) incorporate applicable 40 CFR 60 Subpart IIII requirements for the two permitted standby diesel-fired generator engines, 4) revise the 40 CFR 60 Subpart KKKK requirements to clarify compliance regulations for sulfur monitoring, 5) incorporate BACT for NO_X and CO emissions from the turbines at low load operations, 6) make minor changes in order to streamline the permit requirements, and 7) change the facility name from Sabine Pass LNG Import Terminal to Sabine Pass LNG Terminal. There are no physical changes at the terminal being proposed.

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Proposed Permit

This permit modification (Permit 0560-00214-V2) is an operating permit for the Sabine Pass LNG Terminal.

Permitted Air Emissions (tons/year)

Pollutant	Permitted	Proposed	Change
PM	51.85	51.79	- 0.06
PM_{10}	51.85	51.79	- 0.06
SO_2	5.39	5.40	+ 0.01
NO_X	922.98	922.91	- 0.07
CO	1057.04	1057.04	-
VOC	58.16	58.70	+ 0.54

IV. REGULATORY ANALYSIS

The applicability of the appropriate standards is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Applicability and Exemptions of Selected Subject Items

The explanations for the non-applicability and exemptions of selected subject items are listed in Table XI of the proposed permit.

Prevention of Significant Deterioration (PSD)/Nonattainment Review

The Sabine Pass LNG Terminal was constructed in 2005 under Permit 0560-00214-V0 and PSD-LA-703. PM/PM_{10}, NO_X, CO, and VOC emissions were reviewed under the PSD regulations. These permits were modified. BACT for emissions from the terminal was determined as follows:

Equipment	PM/PM_{10}	NO_X	CO	VOC
Submerged Combustion Vaporizers	Good combustion practices and the use of natural gas	30 ppmv @ 3% O_2 Re-circulated bath water for water injection Good combustion practices, and natural gas fired	80 ppmv @ 5% O_2 Good combustion practices	Good combustion practices and the use of natural gas
Turbines	Good combustion practices and the use of natural gas	dry low NO_X burner 25 ppmv @ 15% O_2 @ load => 50% 50 ppmv @ 15% O_2 @ load < 50%	Good combustion practices 50 ppmv @ 15% O_2 @ load => 75% 80 ppmv @ 15% O_2 @ load < 75%	Good combustion practices and the use of natural gas

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Equipment	PM/PM_{10}	NO_X	CO	VOC
Firewater Engines	Good combustion practices, good engine design, and the use of low sulfur diesel	Good engine design and proper operating practices	Good engine design and proper operating practices	Good combustion practices, good engine design, and the use of low sulfur diesel
Diesel Generator Engines	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII	40 CFR 60 Subpart IIII
Fugitives				LAC 33:III.2111

Streamlined Equipment Leak Monitoring Program

The permit does not include any Streamlined Equipment Leak Monitoring Program.

MACT Requirements

The terminal is classified as a minor source of Toxic Air Pollutants (TAP). MACT is not required.

Air Quality Analysis

Impacts of emissions from the terminal are not expected to cause or contribute to any National Ambient Air Quality (NAAQS) exceedances.

Dispersion Model Used: ISCST3

Pollutant	Averaging Period	Calculated Maximum Ground Level Concentration ($\mu g/m^3$)	National Ambient Air Quality Standard ($\mu g/m^3$)
NO_2	Annual	35.54	100
PM_{10}	24-hour	124.9	150
CO	1-hour	(screen) 1294	40,000
	8-hour	(screen) 474	10,000

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

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V. PERMIT SHIELD

This permit does not contain any permit shield.

VI. PERIODIC MONITORING

The Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the proposed permit.

VII. GLOSSARY

Best Available Control Technologies (BACT) - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring rule – A federal air regulation under 40 CFR Part 64

Carbon Black - A black colloidal substance consisting wholly or principally of amorphous carbon and used to make pigments and ink.

Carbon Monoxide (CO) – (Carbon monoxide) a colorless, odorless gas produced by incomplete combustion of any carbonaceous (gasoline, natural gas, coal, oil, etc.) material.

Cooling Tower – A cooling system used in industry to cool hot water (by partial evaporation) before reusing it as a coolant.
Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Cyclone – A control device that uses centrifugal force to separate particulate matter from the carrier gas stream.

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Duct Burner – A device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Federally Enforceable Specific Condition - A federally enforceable specific condition written to limit the potential to Emit (PTE) of a source that is permanent, quantifiable, and practically enforceable. In order to meet these requirements, the draft permit containing the federally enforceable specific condition must be placed on public notice and include the following conditions:

- A clear statement of the operational limitation or condition which limits the source's potential to emit;
- Recordkeeping requirements related to the operational limitation or condition;
- A requirement that these records be made available for inspection by LDEQ personnel;
- A requirement to report for the previous calendar year.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

Heat Recovery Steam Generator (HRSG) – A steam generator that recovers exhaust heat from a gas turbine, and provides economizing and steam generation surfaces.

Hydrogen Sulfide (H_2S) - A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the action of acids on metallic sulfides, and is an important chemical reagent.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

NESHAP - National Emission Standards for Hazardous Air Pollutants –Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63

Nitrogen Oxides (NO_x) - Compounds whose molecules consists of nitrogen and oxygen.

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Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

NSPS - New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH_4), Ethane (C_2H_6), Carbon Disulfide (CS_2)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: $\geq$ 10 tons per year of any toxic air pollutant; $\geq$ 25 tons of total toxic air pollutants; and $\geq$ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM_{10}- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.